

## REMARKS

Entry of the foregoing and reconsideration of the subject application are respectfully requested in light of the amendments above and the comments which follow.

As correctly noted in the Office Action Summary, claims 1-30 were pending. By the present response, claims 1 and 28 have been amended, claim 9 canceled, and claims 31-34 added. Thus, upon entry of the present response, claims 1-8 and 10-34 remain pending and await further consideration on the merits.

Support for the foregoing amendments can be found, for example, in at least the following locations in the original disclosure: the original claims and the specification, Fig. 9.

## **CLAIM REJECTIONS UNDER 35 U.S.C. §103**

Claims 1-14 and 16-30 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,006,486 to Moriau et al. (hereafter "*Moriau et al.*") in view of U.S. Patent No. 4,304,083 to Anderson (hereafter "*Anderson*") on the grounds set forth in paragraph 2 of the Official Action. For at least the reasons noted below, this rejection should be withdrawn.

**1. Identified features in *Moriau et al.* do not meet the claim limitations for the locking groove and the locking element**

The Examiner relies on the following disclosed features of *Moriau et al.* as allegedly corresponding to the identified claim feature<sup>1</sup>:

Feature in Claim 1	Examiner identified disclosure in <i>Moriau et al.</i> allegedly corresponding to claim feature
a locking groove formed in an underside of a first one of the floorboards and extended in parallel therewith and spaced from the joint edge, and	Locking groove 81
a portion projecting from a second one of the floorboards, said portion supporting, at a distance from the joint edge, a locking element cooperating with the locking groove	Locking element 9

First, Fig. 23 of *Moriau et al.* discloses four different elements marked with reference numeral 81, and it is not at all clear which one is referred to by the Examiner as allegedly corresponding to the locking groove of claim 1. The only structure identified by reference numeral 81 that is formed in an underside of the floorboard is the one in the lower right hand portion of Fig. 23. Accordingly, for purposes of this response, applicant assumes it is that structure referred to by the Examiner as corresponding to the claimed locking groove. The Examiner is requested to confirm or correct this assumption.

However, it is respectfully asserted that the above-identified locking element 9 of *Moriau et al.* does not a) project from a second floorboard (i.e., a different

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<sup>1</sup> Independent claim 1 is referenced here for illustration purpose only. A similar analysis can be made using features of independent claim 28.

floorboard from that which supports the locking groove 81) and b) does not cooperate with the locking groove 81.

First, the identified locking element 9 is on the same one of the two floorboards pictured in Fig. 23 of *Moriau et al.* In that figure, both the identified locking element 9 and the identified locking groove 81 are associated with the same one of the two floorboards, e.g., the floorboard on the right with coupling part 5.

However, the claim clearly states, in part, that:

for horizontal mechanical joining of the joint edges perpendicular to the joint edges, a locking groove formed in an underside of a first one of the floorboards and extended in parallel therewith and spaced from the joint edge, and a portion projecting from a second one of the floorboards, said portion supporting, at a distance from the joint edge, a locking element cooperating with the locking groove (emphasis added)

In other words, in the claimed locking system, which joins a first board to a second board, the locking groove is on a different board from the projecting portion, i.e., a different one of the two floorboards being joined by the locking system. As presented in the rejection, this feature is simply not present.

Second, the identified locking element 9 and the identified locking groove 81 do not cooperate with each other. In Fig. 23 of *Moriau et al.*, the identified locking element 9 cooperates with groove 10 and identified locking groove 81 receives locking element 34.

However, the claim clearly states, in part, that:

for horizontal mechanical joining of the joint edges perpendicular to the joint edges, a locking groove formed in an underside of a first one of the floorboards and extended in parallel therewith and spaced from the joint edge, and a portion projecting from a second one of the floorboards, said portion supporting, at a distance from the joint edge, a locking element cooperating with the locking groove (emphasis added)

In other words, in the claimed locking system, which joins a first board to a second board, the locking groove cooperates with the locking groove. As presented in the rejection, this feature is simply not present.

**2. Several features identified in *Moriau et al.* are inconsistently applied against the claims**

Several identified elements in *Moriau et al.* are inconsistently identified in the rejection as more than one claim feature.

For Example, the Examiner has identified feature 9 of *Moriau et al.* as the locking element associated with the projecting portion (para. 2, lines 11-13). However, the same rejection continues and identifies feature 6 of *Moriau et al.* as corresponding to the same locking element, which is associated with the projecting portion. First, this is inconsistent. Second, feature 9 and feature 6 of *Moriau et al.* are on completely different portions of the locking system and, furthermore, are on two completely separate floorboards, e.g., coupling part 4 and coupling part 5 of *Moriau et al.*

In addition, reference to elements 6, 83 and 34 of *Moriau et al.* do not make sense as used in the rejection. Explanation and clarification are respectfully requested.

**3. The disclosure in *Moriau et al.* and at least one difference between *Moriau et al.* and the present claims**

Although the written rejection is flawed, as outline above, in the interest of expediting prosecution, applicant offers the following comments in an attempt to

clarify the disclosure in *Moriau et al.* Following these comments, at least one deficiency in the disclosure in *Moriau et al.* is discussed.

Based on Fig. 23, *Moriau et al.* discloses a tongue-and-groove joint comprising tongue 9 and groove 10. This tongue-and-groove joint has upper and lower contacting surfaces (not labeled but referred to below in discussing the claimed inner and outer plane). Further, *Moriau et al.* has a second groove 81 open from the underside of the floorboard (shown in lower right portion of Fig. 23. A locking element 34 at an end of the lower lip 43 engages the second groove 81.

The following discussion on the deficiencies in *Moriau et al.* refers to the above referenced elements of Fig. 23.

Independent claims 1 and 28 recite that, in a joined state, there is a space in the tongue-and-groove joint which extends horizontally from an inner vertical plane and at least halfway to an outer vertical plane. The inner vertical plane is defined as that point where the upper abutment surfaces begin to contact each other and the outer vertical plane is defined as that point where the upper abutment surfaces end contact with each other. This feature is simply absent from the disclosure in *Moriau et al.*

Fig. 23, referenced by the Examiner, is reproduced below. The figure is annotated with the position of the inner vertical plane and the outer vertical plane consistent with the claims.



As discussed in MPEP §2143.01, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally

available to one of ordinary skill in the art, to modify or combine the reference teachings. Here, the examiner has stated that the motivation was to promote easy angling insertion as taught by *Anderson*. See, Page 5 of the Official Action. However, *Anderson* does not explicitly discuss any such angling insertion in his panel joints. Nor is there implicit angling in the device of *Anderson*. Indeed, the parallel orientation of the two projecting pieces in Figure 2 may not even be capable of angled joining, much less capable of suggesting to one of ordinary skill to modify a completely different joint, e.g. the *Moriau et al.* joint, for angled entry.

It is clear that such motivation for modifying the teachings of *Moriau et al.* has not been derived from the prior art, but rather from the applicants' own disclosure. Thus, the rejection is based upon impermissible hindsight.

In addition, even if one of ordinary skill were motivated to adopt the space generally identified by the examiner as shown in Fig. 2, it is not at all clear which space one is to adopt and how one is to adapt it to the *Moriau et al.* joint. In such case, the Examiner is merely advocating an improper "obvious to try" rationale.

Here, the rejection has identified a primary reference deficient in element A and a secondary reference that appears to have some portion of that element. The combination is then presented as the rejection. However, the best that one of ordinary skill in the art would derive from these two references is to attempt to place a space within a joint at one of any numerous of points. The prior art does not give any indication of which parameters in *Anderson* are critical (at least partly because *Anderson* does not discuss angled insertion) and gives no direction as to which of a myriad of positions for a space is likely to be successful, not to mention there is no

discussion of the actual claimed position. This is simply not the legal standard under § 103 and the rejection should be withdrawn.

From the above discussion, it is respectfully asserted that the rejection of Applicants' claims 1-14 and 16-30 as outlined in the Official Action is improper and should be withdrawn.

**5. The disclosure in *Anderson* does not contribute to overcome the noted deficiencies in the disclosure in *Moriau et al.***

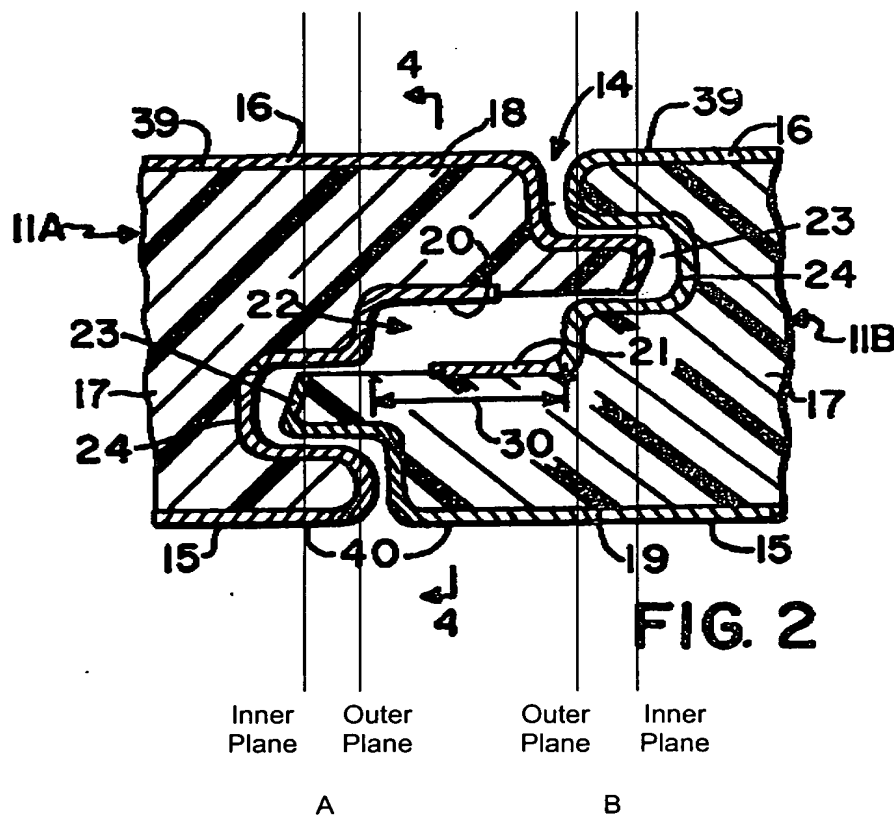
Even if it were proper to combine the disclosures in *Moriau et al.* and *Anderson*, the rejection is still improper because it does not disclose, teach or suggest all of the claim elements. To maintain a proper obviousness rejection, differences between the primary reference of *Moriau et al.* and the present claims must be found in the identified secondary reference of *Anderson*.

*Anderson* is relied upon for showing a tongue and groove designed such that there is "in the groove between the inner vertical plane and the outer vertical plane and below the tongue, a space... which extends horizontally from the inner vertical plane and at least halfway to the outer vertical plane" (a feature the Examiner has found not disclosed in *Moriau et al.*). However, the disclosure in *Anderson* does not contribute to overcome this deficiency identified in *Moriau et al.*

The Examiner correctly notes that there is a space in the area between adjoining pieces of *Anderson*. However, the Examiner has failed to identify any teaching or motivation that would instruct or suggest to one of ordinary skill in the art where to locate any such space, never mind the explicit location of between an inner vertical plane and an outer vertical plane as claimed.



The Examiner identifies Fig. 2 and states that the space is shown as “formed by the bottom of the tongue and top of the bottom of the groove.” However, this selected position of the space is not consistent with the claimed definition in the claims of an inner vertical plane defined as that point where the upper abutment surfaces begin to contact each other and the outer vertical plane is defined as that point where the upper abutment surfaces end contact with each other. Applying the claim language, the following annotation of Fig. 2 of *Anderson* results:



As seen in the annotated Fig. 2, there is simply no space in the joint area of *Anderson* that meets the claimed feature including the claimed space that “extends horizontally from an inner vertical plane and at least halfway to an outer vertical plane” as presently claimed. This deficiency in *Anderson* is present regardless of

whether one considers the upper contact surfaces associated with the first portion of the joint (annotated as A in the above) or the upper contact surfaces associated with the second portion of the joint (annotated as B in the above). For at least this reason, the disclosure in *Anderson* does not contribute to the rejection of the claims based on a combination of *Moriau et al.* and *Anderson* and the rejection should be withdrawn.

Further, the disclosure in *Anderson* does not serve to correct the inconsistencies of the identified features noted above at points 1 and 2.

From the above discussion, it is respectfully asserted that the rejection of Applicants' claims 1-14 and 16-30 as outlined in the Official Action is improper and should be withdrawn.

Claim 15 stands rejected under 35 U.S.C. §103(a) as being unpatentable over *Moriau et al.* in view of *Anderson* as applied to claim 14 above and further in view of U.S. Patent No. 2,398,632 to Frost et al. (hereafter "*Frost et al.*") on the grounds set forth in paragraph 3 of the Official Action. For at least the reasons noted below, this rejection should be withdrawn.

*Frost et al.* is relied upon for merely disclosing "a groove having in upper part a beveled portion for guiding the tongue into the groove." However, this disclosure does not contribute, alone or in combination with *Moriau et al.* and/or *Anderson* to the rejection of the independent claims. Accordingly, withdrawal of this rejection is respectfully requested.

### **INFORMATION DISCLOSURE STATEMENTS**

Eighteen Information Disclosure Statements have been submitted in this application. As of the Official Action dated June 17, 2004, **four** Information Disclosure Statements **have not been acknowledged** by the Examiner by return of an initialed Form PTO-1449.

Herein is summarized for the convenience of the Examiner all the Information Disclosure Statements submitted in this application:

<b>Date Submitted</b>	<b>Number of Pages in PTO Form 1449</b>	<b>Status</b>
February 20, 2001	7	Initialed and Returned
June 13, 2001	1	Initialed and Returned
July 3, 2001	1	Initialed and Returned
August 20, 2001	1	Initialed and Returned
August 31, 2001	1	Initialed and Returned
October 11, 2001	1	Initialed and Returned
April 29, 2002	7	Initialed and Returned
June 28, 2002	1	Initialed and Returned
September 12, 2002	1	Initialed and Returned
September 12, 2002	1	Initialed and Returned
February 24, 2003	1	<b>Not initialed; not returned</b>
May 29, 2003	1	Initialed and Returned
June 5, 2003	1	<b>Not initialed; not returned</b>
June 24, 2003	1	Initialed and Returned
July 22, 2003	1	<b>Not initialed; not returned</b>
October 27, 2003	1	Initialed and Returned
March 16, 2004	1	Initialed and Returned
June 8, 2004	1	<b>Not initialed; not returned</b>

It is respectfully requested that the status of each of the above Information Disclosure Statements be acknowledged by the Examiner in the next communication. Copies of the four not yet initialed and returned IDS are attached.

**CONCLUSION**

From the foregoing, further and favorable action in the form of a Notice of Allowance is earnestly solicited. Should the Examiner feel that any issues remain, it is requested that the undersigned be contacted so that any such issues may be adequately addressed and prosecution of the instant application expedited.

Respectfully submitted,

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Date: October 18, 2004

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